UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/422,121	10/20/1999	JAMES M. BARTON	60097-0039	5130

29989 7590 02/05/2009

HICKMAN PALERMO TRUONG & BECKER, LLP
2055 GATEWAY PLACE
SUITE 550
SAN JOSE, CA 95110

EXAMINER	
BROWN, RUEBEN M	

ART UNIT	PAPER NUMBER
2424	

MAIL DATE	DELIVERY MODE
02/05/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/422,121	BARTON ET AL.	
	Examiner	Art Unit	
	REUBEN M. BROWN	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *10/24/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,15-18,20-22,24-39,43-46,48-50,52-67,71-74,76-78 and 80-126* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-11,18,20-22,24-39,46,48-50,52-67,74,76-78 and 80-126* is/are rejected.

7)☐ Claim(s) *15-17, 43-45 & 71-73* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/26/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/24/08 have been fully considered but they are moot, in view of the new grounds of rejection. Applicant argues that Ismail does not teach the claimed, *'generating a schedule of time versus available storage space that is optimal for the viewer's explicit or inferred programs…using the database of program guide objects…the schedule of time versus storage space tracks al stored programs and programs that have been scheduled to be recorded in the future'*. Applicant argues, Ismail simply checks how much space is available on the storage devices 106 to make his determination if a program is to be recorded. If there is no room on the storage devices, Ismail's system does not record that program...Therefore, Ismail does not contemplate generating a schedule of time versus available storage space that is optimal...".

Examiner respectfully disagrees with arguments set forth in the response. First of all, it is true and applicant is correct that Ismail operates by determining whether there is space or capacity on the storage device to record a program of interest, e.g., selected by a user. If there is space available, the instant program is recorded, if not the program of interest is not recorded. Applicant appears to argue that since the example in Ismail only discusses verifying whether there is sufficient space to store a particular TV program, that somehow a schedule is not

involved and nor is the claimed, 'generating a schedule...'. Secondly, it is pointed out that Ismail discloses that each TV program 105 that is considered by the recording manager 112 has an associated attribute information 107, which includes start_time & duration (see col. 3, lines 35-54; col. 5, lines 19-35). Ismail thus reads on the claimed, *'program guide objects indicate when programs are broadcast'*, and the TV programs 105 to be recorded may include TV programs to be broadcast in the future, see col. 4, lines 58-67 thru col. 5, lines 1-10.

In operation, Ismail (col. 9, lines 59-67 thru col. 10, lines 1-3) discloses that the recording manager 112 sends a request to the preference agent 110 for ratings for all programs at a particular time (X) or alternatively all programs **within a time range (X),** (emphasis added). Next, the recording manager 112 causes the recordation of all programs at a time (X) or **within a time period (X)** (emphasis added) in accordance with the ratings and preferences discussed in the system, col. 10, lines 4-9.

It is quite clear that when Ismail is determining if there is enough storage capacity to store program(s), the system necessarily considers all of the programs that have been recorded or scheduled to be recorded at least up to a particular time (X). Hence, the claimed feature of 'generating a schedule...', is met by Ismail since at whatever particular time (X) that the system in Ismail determines the available storage capacity, at that particular time, at least the previous recorded and scheduled recordings are reviewed. For example, suppose in Ismail that a customer requests to record a program M that is to be broadcast 3 days in the future from the current date.

Then, it is quite clear that by determining the storage capacity at that date & time 3 days in the future, that Ismail would have consider those programs already recorded, as well as those programs scheduled to be recorded, at least up until that point in time 3 days in the future, that program M is scheduled to finish its broadcast, which means that Ismail does generate a schedule of time versus available storage space, tracking all stored programs and programs that have been scheduled to be recorded.

Furthermore, as discussed above, the disclosure in Ismail **causes the recordation of programs**...**within a time period (X)**,which means that the system considers the potential recording of a plurality of programs within a certain time period. For example, suppose that the time period X is 5 days and that the system has identified 6 programs that are scheduled to be broadcast during those 5 days that would potentially be recorded. Clearly then, Ismail would attempt to reserve for recording all those programs that have priority, based on the factors set forth in col. 10, lines 15-32, i.e., programs explicitly selected by the customer have the highest priority, the next highest priority is given to programs matching specific category-value pairs as specified by the user. The next priority discussed in Ismail is given to programs rated by the preference agent 110. Ismail goes on to additionally state that the customer may change the relative priority between the three types of programs, i.e., user-specified programs; programs selected according to user-specified category-value pairs and programs rated by the preference agent 110. By attempting to reserve for recording these 6 programs **that are scheduled** to be broadcast in the future (for example, up to 5 days in the future), **Ismail is generating a schedule…**, as recited in the claims, because each particular time within that example 5 days in

the future that a potential program to be recorded (from the identified 6 programs) is scheduled to be broadcast, Ismail considers whether there is sufficient storage space on the recording medium to record that instant potential program.

It is noted that Ismail does not appear to disclose that a schedule is displayed to the customer, but neither is such a limitation recited in the claims.

With respect to the claimed feature, 'generating an ordered list of future showings of a specific program of interest using the database of program guide objects', applicant goes on to argue that Schein discusses the user manually selecting a program from the list and thus does not reads on the claimed limitation. However, it is pointed out that Schein is only cited to teach the claimed feature of, 'generating an ordered list of future showings of a specific program…'.

On page 26, applicant posits a scenario that is not set forth in the Office Action. Applicant asserts, "Third, …Ismail's system would generate a display as taught in Schein…to display other occurrences of a show to user where the user manually selects a show from the display and the preference agent would eventually check for available space on the storage device. However, it is pointed out that Emura is cited to teach the claimed feature of ...checking showings of the program of interest in the ordered list for input source conflicts… In particular, Emura discloses that when there is a scheduling conflict, which reads on checking showings of the specific program of interest in the ordered list for input conflicts with programs previously scheduled for recording, that the system checks the other scheduled broadcasts of the instant

program in order to record the occurrence of the broadcast at the earliest time where there is no scheduling conflict.

Thus, the combination of Ismail & Emura meets the claimed subject matter, since operating Emura within the environment of Ismail, would teach one of ordinary skill to check programs to be recorded for time conflicts, (i.e., input source conflicts), as well as space conflicts.

In the previous Office Action, examiner used an Official Notice rejection, with respect to claims 26, 54, 82, 96-97, 110-111 & 124-125. Applicant requests a reference to support the Official Notice. The instant claims recite that the viewer is presented with the option of shortening the expiration date of previously recorded programs that have a space conflict with a program selected to be recorded. Wachtfogel teaches that when a customer's recording medium is full, that the customer may change the expiration time of some of the programs, Para [0133, 0216]. This disclosure reads on the claimed subject matter, since having a space conflict as claimed, is the same as the memory being full, as disclosed in Wachtfogel. Also, since the customer in Wachtfogel is enabled to change the expiration time, it would be impractical to change the expiration time to anything less than what allows the other program to be fully recorded. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail with the feature of allowing the customer to change the expiration time for deleting programs, as taught by Wachtfogel, for the desirable advantage of enabling a higher level of user customization of which programs are recorded on the storage medium.

In the previous Office Action, examiner used an Official Notice rejection, with respect to claims 24, 52 & 80. Applicant requests a reference to support the Official Notice. The instant claims recite that the viewer is asked which scheduled recording(s) should be canceled, and which one should be completed. Knudson Para [0098-0101] provides a teaching presenting the viewer with a display showing at least two programs X & Y that are in conflict. The customer may optionally choose to resolve the conflict by choosing one of the programs to record and not the other, which reads on the claimed subject matter. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail with the feature of allowing the customer to change the expiration time for deleting programs, as taught by Knudson, for the desirable advantage of enabling a higher level of user customization of which programs are recorded on the storage medium.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 8-9, 18, 20-33, 36-37, 46, 48-50, 52-61, 64-65, 71-74, 76-78 & 80-84, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ismail, (U.S. Pat # 6,614,987), in view of Rosin, (U.S. Pat # 6,028,600) and Schein, (U.S. Pat # 5,801,787), and further in view of Emura, (U.S. Pat # 6,344,878).

Considering amended claims 1, 29 & 57, the claimed process for scheduling the recording, storing and deleting of TV and Web page program material on a storage medium in a computer environment comprising the step of *'generating a prioritized list of program viewing preferences'* reads on the disclosure in Ismail of the operation of the preference database 116, which contains the values of programming categories preferred by the subscriber, see col. 5, lines 34-67 thru col. 4, lines 1-27; col. 6, lines 1-67 & col. 9, lines 59-67 thru col. 10, lines 1-3.

The amended claimed feature of, *'wherein the list contains a viewer's explicit preferred program selections for recording and inferred program selections for recording'*; is met by the disclosure of Ismail, col. 10, lines 15-31. The cited passage in Ismail teaches that with respect to recording TV programs, the highest priority is given to the programs specifically requested by the user for recording. The next highest priority is given to the programs that match particular category-value pairs specified b the user, and are thus inferred by the preference agent.

The additional claimed features of, *'comparing the list with a database of program guide objects and generating a schedule of time versus available storage space that is optimal for the viewer's explicit or inferred preferred programs'* is met by the discussion in Ismail of

automatically scheduling the recordation of programs that fit the preference criteria of the subscriber, wherein the system has identified sufficient storage space at the time(s) that the programs are available', (col. 2, lines 1-34; col. 9, lines 59-67; col. 10, lines 1-40). The above citation of Ismail explicitly discloses that the recording schedule is made for programs of the highest priority with respect to the storage capacity at the user device, which reads on the claimed, *'optimal for the viewer's explicit or derived preferred programs'*.

As for the additionally claimed feature of the *'preferred programs including TV broadcast programs and URL's (i.e. web sites)'*, Ismail does not disclose the use of the Internet. Nevertheless, Rosin provides a teaching of a system that presents a list of TV programs and/or web sites that correspond with a subscriber's usage history, (Abstract; col. 3, lines 10-23). In particular, it is disclosed that an intelligent agent passively filters TV and Web content based upon the subscriber's demographically based profile, which may be updated by the subscriber's viewing and/or browsing habits, see col. 6, lines 1-67; col. 7, lines 1-55 & col. 14, lines 22-45).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Ismail with the feature of providing a list of Web content, as well as TV content based upon a subscriber's usage pattern, at least for the desirable improvement of providing the user with preferred programming lists from a wider range of sources, instead of being only limited to TV broadcast sources. Further, Rosin discloses that it is beneficial to combine access to both Internet and TV content from a single coherent interface, see col. 2,lines 3-15 & col. 2, lines 45-58. Therefore, the combination of Ismail & Rosin provides a system that

presents list of TV programs and web sites to a user for recording based upon the subscriber's viewing/usage pattern.

As for the additionally claimed feature of the program objects *'indicating when programs of interest are broadcast'*, Ismail teaches attribute information 107, which represents potential programs of interest in the preference database 116 and includes categories such as start time and duration of the program, see col. 3, lines 42-50 & col. 4, lines 1-15.

Regarding the claimed feature of *'generating an ordered list of future showings of a specific program of interest, using the database of program guide objects'*, Ismail does not teach the claimed feature. However, Schein teaches providing a list of future showings of a particular program of interest, see Fig. 3, col. 6, lines 1-52. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Ismail with the feature of providing a list future showings of a program of interest, as taught by Schein, at least for the desirable purpose of enabling the customer, see col. 1, lines 55-67 thru col. 2, lines 1-10 to purchase and/or view a desired program at the most convenient viewing time for the customer.

The additionally claimed feature of, *'checking each showing of space and input source conflicts, and only recoding the programs without conflicts'*, reads on the above cited teachings of Ismail, (col. 10, lines 1-14), as applied to Schein, which teaches *'future showings of a program of interest'*.

Regarding the additionally recited feature of, *'checking each showing of the specific program of interest in the ordered list for input source or storage space conflicts with programs previously scheduled for recording using the schedule of time versus available storage until a particular showing of the specific program of interest is found to not have no input and/or space conflicts, such that the recording of the specific program of interest is made as soon as possible'*, the combination of references do not discuss checking for input source conflicts, i.e. time conflicts. However, Emura provides a teaching of TV recording system that resolves potential input source conflicts with the recording of particular broadcast of a program, by retrieving the future rebroadcasts of the show and checking them against programs already reserved to be recorded in the future, to find a rebroadcast of the instant broadcast that does not have a conflict; see Abstract; col. 6, lines 12-67; col. 14, lines 1-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Ismail & Schein with the improvement of being able to ensure to the user that a particular program of interest will be recorded, possibly at a different date & time, even if there were recording previously scheduled programs for recording at the initial time chosen for recording the instant broadcast of the program, as taught by Emura, col. 1, lines 26-36.

Regarding the newly added feature of *'checking for conflicts immediately upon the viewer making the explicit selection'*, Emura teaches this claimed subject matter, see col. 16, lines 65-67 thru col. 17, lines 1-50.

As for claims 29 & 57, the claimed apparatus and a program storage medium readable by a computer tangibly embodying a program of instructions executable by the computer that perform the steps of scheduling the recording, storing and deleting of TV and Web page program material comprise elements that correspond with subject matter mentioned in the rejection of claim 1, and are likewise treated.

Considering claims 2 & 30, Ismail teaches that the subscriber is enabled to request particular programs to be recorded, which are given the highest priority, col. 4, lines 32-34 & col. 10, lines 15-21.

Considering claims 3, 31 & 59, see Ismail, col. 2, lines 31-34 & col. 10, lines 21-31.

Considering claims 4, 32 & 60, the viewer preferences are inferred from viewing patterns, and are generated by the preference agent 110, col. 3, lines 66-67 & col. 4, lines 13-26.

Considering claims 5, 33 & 61, the preferences are organized according to the content categories of TV programs in the database, col. 3, lines 65-67 thru col. 4, lines 1-20; col. 6, lines 35-67 & col. 10, lines 21-31.

Considering claims 8, 36 & 64, the claimed subject matter reads on the disclosure in Ismail that the programs that match user specified category-value pairs have a middle priority,

and therefore lose conflicts with programs that explicitly selected by the user, which have the highest priority, see col. 2, lines 19-27; col. 10, lines 15-31.

Considering claims 9, 37 & 65, the claimed subject matter reads on the disclosure in Ismail that if the highest rated program requires one hour of storage time, but only thirty minutes are available on the storage devices 106, then the one hour program is skipped, and the highest rated thirty minute program is recorded. This teaching of Ismail, reads on recording programs if at all times between the beginning and ending of the program, there being sufficient storage space to hold it.

Considering claims 26, 54 & 82, Ismail does not discuss the user or the system enabled to change the expiration time of a recording. Official Notice is taken that at the time the invention was made, it was known in the art to manipulate scheduling or broadcasting of programs. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail, with the known technique of manipulating the scheduling/broadcast or reception or programs, at least in order to enable recording of the program, thereby overcoming a conflict, and satisfying the customer. One would have been motivated to manipulate a program expiration time only to the time needed, since more reduction would potentially cause the program to lose a conflict with a different program, that has an expiration period within the instant program's.

Considering claims 21, 49 & 77, the claimed subject matter reads on the user in Ismail choosing to delete scheduled recordings that have conflicts, col. 10, lines 58-63.

Considering claims 18, 20, 46, 48, 74 & 76, the claimed '*background scheduler that schedules and records programs in a list'* reads on the operation of Ismail, wherein the recording manger 112, schedules a list of programs to be recorded, see col. 9, lines 59-67 & col. 10, lines 1-14. Regarding claims 20, 48 & 76, only those programs that survive the conflict programs at a particular time are recorded. Thus if a program is recorded at a particular time, then necessarily there were no more remaining conflicts with any other programs.

Considering claims 22, 50 & 78, Emura teaches that when a conflict is detected, the system attempts to resolve the conflict by reserving to record the next broadcast of the same program that does not have a conflict, which reads on the claimed, resolving conflicts as early as possible.

Considering claims 24, 52 & 80, Official Notice is taken that at the time the invention was made, it was known in the art of GUI technology to provide users with a prompt requesting an action or alternative action. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail with the well-known technique of prompting a user with a GUI message in order to illicit action, at least in order to bring a particular conflict to the user's attention, avoiding the user having to manually look for the conflict, which saves time.

Considering claims 25, 53 & 81, see Ismail, col. 2, lines 21-26 & col. 10, lines 15-32.

Considering claims 27, 55 & 83, the claimed subject matter is met by Ismail, col. 2, lines 21-26 & col. 10, lines 15-32, which teaches that conflicts are resolved according to their priority, which reads on preference weighting.

Considering claims 28, 56 & 84, the claimed limitation also reads on the disclosure of Ismail, that only the program with the highest priority, including space considerations is recorded at a particular time, which means that the instant program being recorded has exceeded that of the other programs with which there was a conflict.

2. Claims 85-126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ismail, Rosin & Schein, in view of Akamatsu, (US Pat # 7,224,886).

Regarding the newly added claims 85, 99 & 113, the claimed features that correspond with subject matter mentioned above in the rejections of claims 1, 29 & 57, are likewise treated. As for the additional claimed feature of *'determining storage medium memory space and input scheduling conflict between programs in the list and future scheduled recording, so that the determining step generates a schedule of time versus available storage space that is optimal for the viewer's explicit or inferred programs, and schedules programs to be recorded that do not*

have storage memory space and conflict with other scheduled programs', the claimed feature reads on the discussion in Ismail that the recording of programs is subject to storage capacity constraints, so that programs with highest priority are recorded ahead of those with lower priority, if there is not enough storage space at a particular time, see Ismail col. 9, lines 59-67 thru col. 10, lines 1-31.

As for the additional feature of *'checking a plurality of input sources for input sources appropriate for showing each showing of the program of interest'*. The references are only discussed with respect to a single input source. However, Akamatsu, which is in the same field of endeavor teaches a plurality of recording devices and determining which one is available to record a program to be recorded, see col. 10, lines 5-63; col. 11, lines 4-65; Figs. 25-30. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail to check a plurality of input sources for their availability, as taught by Akamatsu, for the improvement of a more flexible recording method.

Considering claims 86, 100 & 114, Ismail teaches that the subscriber is enabled to request particular programs to be recorded, which are given the highest priority, col. 4, lines 32-34 & col. 10, lines 15-21.

Considering claims 87, 101 & 115, the viewer preferences are inferred from viewing patterns, and are generated by the preference agent 110, col. 3, lines 66-67 & col. 4, lines 13-26.

Considering claims 103 & 117, the claimed subject matter reads on the disclosure in Ismail that the programs that match user specified category-value pairs have a middle priority, and therefore lose conflicts with programs that explicitly selected by the user, which have the highest priority, see col. 2, lines 19-27; col. 10, lines 15-31.

Considering claims 104 & 118, the claimed subject matter reads on the disclosure in Ismail that if the highest rated program requires one hour of storage time, but only thirty minutes are available on the storage devices 106, then the one hour program is skipped, and the highest rated thirty minute program is recorded. This teaching of Ismail, reads on recording programs if at all times between the beginning and ending of the program, there being sufficient storage space to hold it.

Considering claims 96-97, 110-111 & 124-125, Ismail does not discuss the user or the system enabled to change the expiration time of a recording. Official Notice is taken that at the time the invention was made, it was known in the art to manipulate scheduling or broadcasting of programs. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail, with the known technique of manipulating the scheduling/broadcast or reception or programs, at least in order to enable recording of the program, thereby overcoming a conflict, and satisfying the customer.

Considering claims 95, 109 & 123, the claimed subject matter reads on the user in Ismail choosing to delete scheduled recordings that have conflicts, col. 10, lines 58-63.

Considering claims 88, 102 & 116, see Ismail col. 3, lines 66-67 & col. 10, lines 21-24, which teaches that the category-value pairs are indicative of a user's viewing preference.

Considering claim 89, Ismail teaches that explicit selections have higher priority.

Considering claim 90, Ismail teaches that when determining capacity, the system considers the start time and duration of program(s).

Considering claims 91-92, 105-106 & 119-120, Ismail teaches insuring that a resource is available for the duration of the recording before beginning to use it, col. 10, lines 10-14. The additional subject matter is met by Akamatsu, col. 20, lines 25-45 & Fig. 25 thru Fig. 28.

Considering claims 93-94, 107-108 & 121-122, '*deriving a list of showings of programs of interest from the program guide'* is met by Fig. 2 & Fig. 3 of Ismail, where the list of programs of interest is generated, see Ismail col. 9, lines 59-67. Wherein *'the determining step checks the list of showings for explicit or inferred program selections in an attempt to find a showing of the instant inferred or explicit programs that does not have conflicts, and if the showing does not have conflicts then it is scheduled for recording'*, reads on the operation of Ismail, (col. 1, lines 54-67 thru col. 2, lines 1-26 & col. 10, lines 1-31). Since Ismail discloses that programs are recorded subject to available space, if a scheduled program has no conflicts, then the instant program would be recorded.

Considering claims 98, 112 & 126, Ismail teaches that viewers have the option of canceling programs, if there is a conflict, col. 10, lines 50-62.

4. Claims 6-7, 10-11, 34-35, 38-39, 62-63, 66-67, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ismail, Rosin, Schein & Emura, in view of Wood, (US-PGPUB 2002/0054752 A1).

Considering claims 6, 34 & 62, Ismail teaches managing the capacity of storage devices 106 at the user's terminal, which includes detecting the programs already stored and those scheduled to be recorded at a particular time, col. 10, lines 9-14. Ismail does not discuss providing an input schedule that tracks the free and occupied time slots for each input source. Nevertheless, Wood, which is in the same field of endeavor as Ismail discloses recording one or more broadcast programs that meets a subscriber's criteria of programming content, Para [0010] & Para [0037]. Wood goes on to teach that there may be a single or plural video input sources 106 that provide the broadcasts to the subscriber, and that if multiple sources are available at a particular time, then multiple recordings may take place simultaneously.

Wood determines that if sufficient input sources are not available to allow recordings of all the shows that meet the criteria, then the shows are recorded based upon their priority, which reads on the claimed limitation of tracking the free and occupied time slots of each of the input

sources; see Para [0038]. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ismail with the feature of tracking availability of input sources for recording programs, as taught by Wood, at least for the desirable advantage of determining on only using those sources that are available.

Considering claims 7, 35 & 63, Ismail teaches detecting the amount of recording space available on the storage devices 106, which reads on subtracting the sum of all occupied space at particular time, from the total capacity of storage space already in use, col. 10, lines 3-14.

Considering claims 10, 38 & 66, the claimed subject matter reads on the combination of Ismail (col. 10, lines 11-14) & Wood (Para [0038]). Wood teaches only recording from input sources that are available at least at the time the recording, while Ismail teaches insuring that a resource is available for the duration of the recording before beginning to use it.

Considering claims 11, 39 & 67, the claimed subject matter is consistent with the previously cited teachings of Wood, since only those inputs that are available for recording during a particular time, can be used for recording during the instant particular time.

Allowable Subject Matter

3. Claims 15-16, 43-44 & 71-72 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's claims.

A) Hassell Teaches displaying the estimated time remaining to record programming on a particular recording medium, with respect to a list of already recorded programs or scheduled programs, see Fig. 7a; Fig. 9.

B) Hanai Shows a list of scheduled recordings.

C) Proehl Shows a monthly EPG schedule that displays on the same screen, programs that have been recorded and those scheduled to be recorded (Fig. 9).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

or faxed to:
(571) 273-8300, (for formal communications intended for entry)
Or:
(571) 273-7290 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F(8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chris Kelley/
Supervisory Patent Examiner, Art Unit 2424